

REMARKS

Claims 1-3, 6-14, 16, 17, 19-27, and 34-41 are pending. Claims 4, 5, 15, 18, and 28 to 33 were previously canceled. Claim 27 is currently amended. Claims 42 to 43 have been added.

Reconsideration of the application, as amended, is requested.

Support for the amendment to claim 27 can be found in the specification, for example, page 26, line 18 to page 28, line 10, and in Figs. 3b and 4b.

Support for new claims 42 and 43 can be found in the specification, for example, page 8, lines 3 and 4, and the discussion of nonwoven materials from page 8, line 6 to page 9, line 4.

Interview Summary

The undersigned acknowledges with appreciation the telephone interview granted by the examiner on April 6, 2009. Potential amendments and arguments relating to claim 20 and new claim 42, enclosed herein, were discussed.

§ 103 Rejections

Claims 1, 3, 6-14, 16, 17, 19-26, 34, 35, and 37-39 are rejected under 35 USC § 103(a) as being unpatentable over Buzzell et al (US 6,582,642), which incorporated Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,342,285).

Applicants traverse the rejection at least because the rationale for modifying the references to stretch a laminate of a nonwoven layer in continuous contact with a thermoplastic web layer is insufficient when the teachings of Buzzell et al., Kennedy et al., and Shepard et al. are considered as a whole.

The Office Action states:

"Buzzell et al. do suggest the fibrous material employed to form the laminate (Figure 13a) functions as loops in a hook and loop fastener (col. 15, lines 23-27), but do not teach or suggest that employment of a nonwoven fibrous material that is in continuous contact with the thermoplastic web layer (i.e. a nonwoven fibrous material that is not pre-compressed) is employed."

Applicants agree.

The Office Action further states:

"However, Shepard et al. teach a method of providing a nonwoven, uncompressed fastener loop material that is less expensive than conventional loop fabrics (col. 1, lines 24-36) that can be stabilized in a stretched condition (col. 1, lines 58-66; col. 5, lines 8-26; col. 17, lines 31 -46).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Buzzell et al. and to have employed a nonwoven, uncompressed, stretchable, fibrous loop material, as the fabric layer of Buzzell et al., as suggested by Shepard et al., for the purpose, as suggested by Shepard et al. of providing stretchable loop material that is less expensive than conventional loop fabrics. The examiner submits that in the combination with Buzzell et al., the uncompressed, nonwoven loop material fed between the rolls (14) and (16) is in continuous contact with the layer of thermoplastic resin (e.g. compare Figure 13 of Buzzell et al. with Figures 1 a and 2 of the original disclosure)."

Applicants argued in a previous response that with the submission "in the combination with Buzzell et al., the uncompressed, nonwoven loop material fed between the rolls (14) and (16) is in continuous contact with the layer of thermoplastic resin", the examiner has attributed a process to the combination of Buzzell et al. and Shepard et al. that is not a part of either of the disclosures.

In the response to the Applicants arguments, the Office Action states:

"The examiner submits that the combination suggests modifying the method of Buzzell et al., which incorporates Kennedy et al., by utilizing the stretchable web of Shepard et al. to replace the "precompressed" fabric of Buzzell et al. This combination meets the claim. The examiner submits and notes that Buzzell et al. does not teach that only precompressed fabrics can be employed (e.g. the incorporation of Kennedy et al. suggests and implies otherwise) and that the disclosure of Kennedy et al. shows a variety of backing fabrics can be employed. Additionally, the uncompressed stretchable fabric of Shepard et al. provides a suggestion and motivation to employ materials other than the precompressed fabric exemplified by Buzzell et al."

The submission that Buzzell et al. does not teach that only precompressed fabrics can be employed appears to contradict the earlier statement, "Buzzell et al. do suggest the fibrous material employed to form the laminate (Figure 13a) functions as loops in a hook and loop fastener (col. 15, lines 23-27), but do not teach or suggest that employment of a nonwoven fibrous material that is in continuous contact with the thermoplastic web layer (i.e. a nonwoven fibrous material that is not pre-compressed) is employed."

The incorporation of Kennedy et al. does not change the fact that Buzzell et al. teaches that fabrics should be precompressed before combining them with thermoplastic according to the method of Kennedy et al. if a touch fastener having hooks on one side and loops on the other is desired. There is no disclosure in Kennedy et al. about stretching laminates of thermoplastic resin and fibrous layers.

The Office Action states that the uncompressed stretchable fabric of Shepard et al. provides a suggestion and motivation to employ materials other than the precompressed fabric exemplified by Buzzell et al. It is unclear what reasoning supporting a conclusion of obviousness is articulated in this statement other than since stretchable fabrics exist, a person of skill in the art would use them in the method of Buzzell et al.

The Office Action does provide a rationale for using the nonwoven fastener loop of Shepard et al. in the method of Buzzell et al.: providing a stretchable loop material that is less expensive than conventional loop fabrics. Since this objective might be achieved by following the express teachings of Buzzell et al. and Shepard et al. (e.g., precompressing a fabric before lamination or adding a fabric to a thermoplastic after stretching), why would a person of ordinary

skill in the art modify the teachings to attempt to stretch an uncompressed nonwoven material at the same time as the thermoplastic web? No reason is provided in the Final Office Action.

In *Ex parte* Debora Rinkevich and John Michael Garrison BPAI 2007-1317, the Board of Patent Appeals and Interferences concluded that a person of ordinary skill in the art having common sense would not have reasonably looked to a secondary reference to solve a problem already solved by the primary reference. In the present application, Applicants submit that a person of ordinary skill in the art having common sense would not modify the references to attempt to stretch an uncompressed nonwoven material at the same time as the thermoplastic web since the problem to be solved provided by the examiner (i.e., reduction in cost) could be achieved by following the express teachings of the two references.

Applicants submit that the Office Action provides insufficient rationale for combining Buzzell et al. and Shepard et al. and for modifying the combined teachings to stretch a laminate of a nonwoven layer in continuous contact with a thermoplastic web layer. Accordingly, Applicants request withdrawal of the rejection of claims 1 under 35 USC § 103(a) as being unpatentable over Buzzell et al (US 6,582,642), which incorporated Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,342,285).

Claims 3, 6-14, 16, 17, 19-26, 34, 35, and 37-39 each depend directly or indirectly from claim 1. Claim 1 is patentable for the reasons given above. Thus, claims 3, 6-14, 16, 17, 19-26, 34, 35, and 37-39 are likewise patentable.

Further, with respect to claims 20 and 21, which recite the limitation "wherein the fibrous web layer comprised in the stretched mechanical fastening laminate has a basis weight of from 1 to 30 g/m²", the Office Action States:

"As to claims 20 and 21, Shepard et al. suggest the weight of the nonwoven material is about 2 ounces/sq. yard (col. 1, lines 29-39) or less (col. 7, lines 17-19) (i.e., 67 g/m² or less). In the combination, this material is stretched to produce the desired hook and loop fastener. Additionally, Shepard et al. suggest that the density of the material is a result effective variable that impacts the cost and weight of the final product. As such, one having ordinary skill would have readily optimized the final density of the loop portion of the fastener material to economically yield a product having the desired properties. Further, Buzzell et al. teach stretch ratios ranging from 2-8 (col. 8, lines 4-41)."

The Office Action indicates that optimization could be used to achieve a stretched mechanical fastening laminate with a fibrous web layer having a basis weight of from 1 to 30 g/m². Although, Shepard et al. suggests that the basis weight of the nonwoven material is 67 g/m² or less, there is no indication that the nonwoven having a basis weight of 30 g/m² or less (i.e., less than half of what was disclosed in Shepard et al.) could be achieved. Also, Applicants submit that the Examples of Kennedy et al. teach away from using low basis weight materials as loop materials. As described earlier, Buzzell et al. in col. 15 teach that fasteners should have functional loops. Examples II to IV of Kennedy et al. use nonwoven materials that have basis weights of 1.35, 0.6, and 0.5 ounces per square yard (45, 20, and 17 g/m²), respectively. These provide products that are not described as having functional loops. Instead they are described, for example in Examples III and IV, as having fibers as an integral part of the surface with a very fine fuzz above the surface. Examples VII and VIII on the other hand refer to loop materials as part of the laminate. These loop fabrics used in these laminates have basis weights of 271-337 grams/m². Therefore, since Kennedy et al. teaches away from using low-basis weight materials as loop materials, a person of ordinary skill in the art would not have used routine optimization to arrive the stretched laminate as claimed in claim 20; (see, e.g., *Ex parte Whalen II*, Appeal 2007-4423).

Further, with respect to claim 39, which recites the limitation "wherein the fibrous web layer is a spunbond or melt blown nonwoven material", the Office Action States:

"As to claim 39, Shepard teaches that the webs can also be produced by various methods including hydro or air current entanglement (col. 17, lines 43-47). Further, Kennedy et al. teach that spunbond webs are suitable for combination with a hook fastener (Example 1)."

Applicants submit that the hydro or air current entanglement discussed in this location of Shepard et al. are suggested alternatives to needling to form entanglements, and Shepard et al. does not suggest that spunbond webs can be used. Applicants submit that the Examples in Kennedy et al. imply that spunbond webs, in general, are not suitable as loop materials. The loop materials used in Examples V, VI, and VIII are all described as knit fabrics. See, e.g., the discussion above with respect to claim 20.

In summary, the rejection of claims 1, 3, 6-14, 16, 17, 19-26, 34, 35, and 37-39 under 35 USC § 103(a) as being unpatentable over Buzzell et al (US 6,582,642), which incorporated Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,342,285) has been overcome and should be withdrawn.

New claim 42 recites the limitation "wherein the fibrous web layer is a point bonded nonwoven material or a continuous bonded nonwoven material". Applicants submit that the cited art does not teach or suggest that point bonded or continuous bonded nonwoven materials could be used in a method of making a stretched mechanical fastening laminate as claimed. As discussed above, Buzzell et al. and Kennedy et al. teach that knitted materials are useful as loop materials, and the formation of a functional loop material is essential to the teaching of Buzzell et al. Shepard et al. does not suggest that point or continuous bonded nonwoven materials can be used to make the stretchable nonwoven loop material. Furthermore, since needling is used to break up the nonwoven of Shepard et al. so that it can be stretched, bonding the nonwoven appears to be contrary to the purposes of Shepard et al. In contrast, Applicants' laminate can be stretched without a needling step. Applicants found that the nonwoven materials can be uniformly stretched even when they are point bonded or continuous bonded. The uniform stretching is evidenced by the enhanced tensile strength that can be observed in the Examples of the present application and in Fig. 5. The uniform stretching of a bonded nonwoven, which may result from uniform micro-tearing, would not have been expected from the teachings of the cited art.

Claims 2, 40, and 41 are rejected under 35 USC § 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,342,285) and de Navas Albareda (US 4,056,593).

Applicants traverse the rejection on the grounds that an insufficient rationale for modifying the Buzzell et al. taken with Kennedy et al. and further in view of Shepard et al. and de Navas Albareda was given, and therefore a proper *prima facie* case of obviousness has not been made. Specifically, for the reasons given above, Applicants submit that the previous

response to Applicants arguments contained an apparently contradictory statement regarding the teaching in Buzzell et al. about stretching nonprecompressed fabrics. Further, for the reasons given above, Applicants submit that a person of ordinary skill in the art having common sense would not modify the references since the problem to be solved provided in the Office Action (i.e., reduction in cost) could be achieved by following the express teachings of the two references. And finally, for the reasons given above, Applicants submit that it is unclear what reasoning supporting a conclusion of obviousness is articulated in the statement, "Additionally, the uncompressed stretchable fabric of Shepard et al. provides a suggestion and motivation to employ materials other than the precompressed fabric exemplified by Buzzell et al."

In view of at least these three reasons, and in view of the related discussion provided above with respect to claim 1, the rejection of claim 2 under 35 USC § 103(a) as being unpatentable over Buzzell et al. in view of Shepard et al. and de Navas Albareda, has been overcome and should be withdrawn.

Claims 40 and 41 each depend directly from claim 2. Claim 2 is patentable at least for the reasons given above. Thus, claims 40 and 41 are likewise patentable.

Further, with respect to claim 41, which recites the limitation "wherein the fibrous web layer is a spunbond or melt blown nonwoven material", Applicants submit that Shepard et al. does not suggest that spunbond webs can be used. Applicants submit that the Examples in Kennedy et al. imply that spunbond webs, in general, are not suitable as loop materials. See, e.g., the discussion above with respect to claim 20. The loop materials used in Examples V, VI, and VIII are all described as knit fabrics.

The rejection of claims 2, 40, and 41 under 35 USC § 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,342,285) and de Navas Albareda (US 4,056,593) has been overcome and should be withdrawn.

New claim 43 recites the limitation "wherein the fibrous web layer is a point bonded nonwoven material or a continuous bonded nonwoven material". Applicants submit that the cited art does not teach or suggest that point bonded or continuous bonded nonwoven materials could be used in a method of making a stretched mechanical fastening laminate as claimed. As discussed above, Buzzell et al. and Kennedy et al. teach that knitted materials are useful as loop

materials, and the formation of a functional loop material is essential to the teaching of Buzzell et al. Shepard et al. does not suggest that point or continuous bonded nonwoven materials can be used to make the stretchable nonwoven loop material. Furthermore, since needling is used to break up the nonwoven of Shepard et al. so that it can be stretched, bonding the nonwoven appears to be contrary to the purposes of Shepard et al. In contrast, Applicants' laminate can be stretched without a needling step. Applicants found that the nonwoven materials can be uniformly stretched even when they are point bonded or continuous bonded. The uniform stretching is evidenced by the enhanced tensile strength that can be observed in the Examples of the present application and in Fig. 5. The uniform stretching of a bonded nonwoven, which may result from uniform micro-tearing, would not have been expected from the teachings of the cited art.

Claim 27 is rejected under 35 USC § 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,342,285), as applied to claims 1, 3, 6-14, 16, 17, 19-26, 34, 35, and 37-39 above and further in view of de Navas Albareda (US 4,056,593).

Applicants traverse insofar as it is applied to claim 27, as amended. As stated in the Office Action, "Buzzell et al. do suggest the fibrous material employed to form the laminate (Figure 13a) functions as loops in a hook and loop fastener (col. 15, lines 23-27)". Amended claim 27 now recites that the method further comprises incorporating the portion of the stretched mechanical fastening web laminate into a backsheet of a disposable absorbent article such that the male fastening elements are exposed. Since the purpose of Buzzell et al. is to form a touch fastener with hooks on one side and loops on the other, it would be contrary to this purpose to incorporate the stretched mechanical fastening web laminate into a backsheet of a disposable absorbent article. In such a construction, the nonwoven fabric would not be exposed, and therefore no loops would be exposed.

In view of the above remarks, The rejection of claim 27 under 35 USC § 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,342,285),

as applied to claims 1, 3, 6-14, 16, 17, 19-26, 34, 35, and 37-39 above and further in view of de Navas Albareda (US 4,056,593) has been overcome and should be withdrawn.

Claim 36 is rejected under 35 USC § 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,342,285), as applied to claims 1, 3, 6-14, 16, 17, 19-26, 34, 35, and 37-39 above and further in view of Song et al. (US 5,534,215) or Gebler et al. (US 3,324,218).

Applicants traverse the rejection on the grounds that an insufficient rationale for combining and modifying the Buzzell et al. taken with Kennedy et al. and further in view of Shepard et al. and Song et al. or Gebler et al. was given, and therefore a proper *prima facie* case of obviousness has not been made. Specifically, for the reasons given above, Applicants submit that the previous response to Applicants arguments contained an apparently contradictory statement regarding the teaching in Buzzell et al. about stretching nonprecompressed fabrics. Further, for the reasons given above, Applicants submit that a person of ordinary skill in the art having common sense would not modify the references since the problem to be solved provided in the Office Action (i.e., reduction in cost) could be achieved by following the express teachings of the two references. And finally, for the reasons given above, Applicants submit that it is unclear what reasoning supporting a conclusion of obviousness is articulated in the statement, "Additionally, the uncompressed stretchable fabric of Shepard et al. provides a suggestion and motivation to employ materials other than the precompressed fabric exemplified by Buzzell et al."

The rejection of claim 36 under 35 USC § 103(a) as being unpatentable over Buzzell et al. (US 6,582,642), which incorporates Kennedy et al. (US 5,260,015) into the disclosure by reference, and further in view of Shepard et al. (US 6,342,285), as applied to claims 1, 3, 6-14, 16, 17, 19-26, 34, 35, and 37-39 above and further in view of Song et al. (US 5,534,215) or Gebler et al. (US 3,324,218) has been overcome and should be withdrawn.

In view of the above, it is submitted that the application is in condition for allowance.
Examination and reconsideration of the application, as amended, is requested.

Respectfully submitted,

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